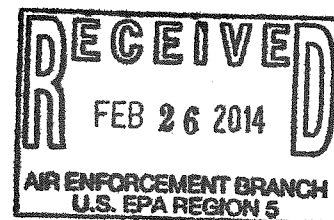


US EPA ARCHIVE DOCUMENT

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February 24, 2014



EPA Region 5  
Air and Radiation Division  
Air Programs Branch (AR-18J)  
Air Permits Section  
77 West Jackson Boulevard  
Chicago, IL 60604

**Re: Permit Renewal Application, Grand Casino Mille Lacs**  
**Title V Permit to Operate, Permit Number: V-ML-2709500005-2009-01**

To Whom It May Concern:

Grand Casino Mille Lacs is submitting a permit renewal application for its Title V Permit to Operate. The completed EPA Part 71 permit application forms are enclosed with this letter. The application is being submitted at least six months prior to the August 27, 2014 expiration date.

NESHAP Applicability

The National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) was revised since the last permit was issued (August 27, 2009). These new emission standards and requirements for the internal combustion engines at Grand Casino Mille Lacs are included on form I-COMP, Initial Compliance Plan and Compliance Certification.

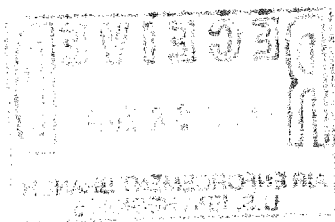
Grand Casino Mille Lacs received a one-year extension of the compliance date of May 3, 2013, for compliance with NESHAP Subpart ZZZZ. Oxidation catalysts were installed in October, 2013. Initial performance testing was completed in November, 2013.

NESHAP Subpart ZZZZ requires carbon monoxide (CO) performance testing every three years or 8,760 hours of operation, whichever comes first, unless the engines are limited use engines. Limited use engines that operate less than 100 hours per year are allowed to test every five years or 8,760 hours of operation, whichever comes first. None of the four non-emergency

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engines were run more than 100 hours in 2013; therefore, the engines are considered limited use engines until they exceed 100 hours per calendar year.

#### Proposed Changes to Permit Conditions

Grand Casino Mille Lacs is also required to conduct performance testing for NOx emissions every five years and annual NOx testing using a portable analyzer for years between performance tests. We would like to propose that the new permit conditions are written with some flexibility so that NOx performance testing may be conducted on the same schedule as the CO performance testing, either every three years or every five years, and annual NOx testing is conducted for years when performance testing is not required. Testing NOx and CO emissions simultaneously will save a significant amount of money.

Proposed permit condition 2.0(C)3.i. is below:

Periodic performance tests for emission units EU001 — EU003: The Permittee shall conduct NOx performance tests every three to five calendar years, whenever CO performance testing is required by 40 CFR 63 Subpart ZZZZ Table 6 ~~starting on or before the fifth anniversary of the initial compliance test,~~ to determine compliance with all NOx emissions limits. Within 60~~45~~ days of the performance tests, the Permittee shall submit to EPA a written report of the results of such performance tests.

We would also propose to change the testing notification to 60 days before the scheduled test date and the test report submittal to 60 days after completion of the test for both NOx and CO testing for consistency.

In addition, permit condition 2.0(C)5. has been completed and is now obsolete.

#### Laundry Emergency Generator

In reviewing facility information for compliance with NESHAP Subpart ZZZZ, we discovered that an emergency generator used at the laundry building should be added to the air permit. The laundry emergency generator is an existing diesel-fired emergency engine rated at 500 kW. It is subject to the work practice and maintenance standards in NESHAP Subpart ZZZZ.

The potential to emit for NOx is 3.3 tons per year based on 500 hours per year and using AP-42 emission factors. With the current permit limits on EU001 – EU004, the total facility potential to emit for NOx is 240 tons per year. The addition of the laundry emergency generator is not a major modification and does not cause the facility to exceed PSD major source thresholds. Actual emissions from the laundry generator are very low. This generator only operated 6 hours in 2013. Emission calculations are included in the permit application.

Permit Application Forms

Grand Casino Mille Lacs submitted the Annual Fee Report (Forms FEE and FF) on October 4, 2013 and Annual Compliance Certification form (Form A-COMP) on January 30, 2014. This permit application references those submittals, but does not repeat the information in those forms or include those forms.

In the last permit application, several HVAC units were listed as insignificant activities. These units were not included in this application because 40 CFR 71.5(11)(i)(D), heating units used for human comfort that do not provide heat for any manufacturing or other industrial process, are categorically listed as insignificant activities. Information regarding the HVAC units will be provided upon request. In this permit application, several oil tanks have been added as insignificant activities with potential emission levels below 2 tons per year for regulated air pollutants and below 1,000 pounds per year for hazardous air pollutants.

The Potential to Emit Summary (Form PTE) has been completed for each emission unit using the federally enforceable limits on operating hours from the permit. EU001 – EU003 each are limited to 300 hours per year of operation. EU004 is limited to 209 tons per year of NOx. The PTE for the emergency laundry generator is based on 500 hours per year of operation.

If you have any questions or concerns regarding this application, please contact me at (320) 532-8126 or [mnickaboine@grcasinos.com](mailto:mnickaboine@grcasinos.com), or Julie Miller, Barr Engineering Company, (952) 832-2906 or [jmiller2@barr.com](mailto:jmiller2@barr.com).

Sincerely,



Michael Nickaboine  
Vice President of Facilities

cc: Raymond Kegg, Grand Casino Mille Lacs  
James Hutchison, Grand Casino Mille Lacs  
Julie Miller, Barr Engineering Company



## **Application for Part 71 Permit Renewal**

***Title V Permit to Operate***

***V-ML-2709500005-2009-01***

Prepared for  
Grand Casino Mille Lacs

February 2014



# Application for Part 71 Permit Renewal

February 2014

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United States  
Environmental Protection  
Agency

OMB No. 2060-0336, Approval Expires 6/30/2015

Federal Operating Permit Program (40 CFR Part 71)

**CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)**

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part 71 permit).

**A. Responsible Official**

Name: (Last) Nickaboine (First) Michael (MI) J

Title Vice President of Facilities

Street or P.O. Box 777 Grand Avenue, Highway 169

City Onamia State MN ZIP 56359 -

Telephone (320) 532 - 8126 Ext.  Facsimile (320) 532 - 8392

**B. Certification of Truth, Accuracy and Completeness** (to be signed by the responsible official)

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed) Michael Nickaboine

Name (typed) Michael Nickaboine Date:  /  /



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United States  
Environmental Protection  
Agency

OMB No. 2060-0336, Approval Expires 06/30/2015

Federal Operating Permit Program (40 CFR Part 71)

**GENERAL INFORMATION AND SUMMARY (GIS)**

**A. Mailing Address and Contact Information**

Facility name Grand Casino Mille Lacs

Mailing address: Street or P.O. Box 777 Grand Avenue, Highway 169

City Onamia State MN ZIP 55359 -

Contact person: Michael Nickaboine Title Vice President of Facilities

Telephone ( 320 ) 532 - 8126 Ext.  Facsimile ( 320 ) 532 - 8392

**B. Facility Location**

Temporary source?  Yes X No Plant site location 777 Grand Avenue, Highway 169

City Onamia State MN County Mille Lacs EPA Region V

Is the facility located within:

Indian lands? X YES  NO OCS waters?  YES X NO

Non-attainment area?  YES X NO If yes, for what air pollutants?

Within 50 miles of affected State?  YES X NO If yes, What State(s)?

**C. Owner**

Name Mille Lacs Band Corporate Commission Street/P.O. Box 777 Grand Avenue

City Onamia State MN ZIP 56359 -

Telephone ( 320 ) 532 - 8126 Ext.

**D. Operator**

Name Same as Owner Street/P.O. Box

City  State  ZIP  -

Telephone (  )  -  Ext.

**E. Application Type**

Mark only one permit application type and answer the supplementary question appropriate for the type marked.

☐ Initial Permit    ☒ Renewal    ☐ Significant Mod    ☐ Minor Permit Mod(MPM)

☐ Group Processing, MPM    ☐ Administrative Amendment

For initial permits, when did operations commence? \_\_\_\_ / \_\_\_\_ / \_\_\_\_

For permit renewal, what is the expiration date of current permit? 8 / 27 / 2014

**F. Applicable Requirement Summary**

Mark all types of applicable requirements that apply.

☐ SIP    ☐ FIP/TIP    ☒ PSD    ☐ Non-attainment NSR

☐ Minor source NSR    ☐ Section 111    ☐ Phase I acid rain    ☐ Phase II acid rain

☐ Stratospheric ozone    ☐ OCS regulations    ☒ NESHAP    ☐ Sec. 112(d) MACT

☐ Sec. 112(g) MACT    ☐ Early reduction of HAP    ☐ Sec 112(j) MACT    ☐ RMP [Sec.112(r)]

☐ Tank Vessel requirements, sec. 183(f))    ☐ Section 129 Standards/Requirement

☐ Consumer / comm.. products, ' 183(e)    ☐ NAAQS, increments or visibility (temp. sources)

Has a risk management plan been registered? ☐ YES ☒ NO    Regulatory agency \_\_\_\_\_

Phase II acid rain application submitted? ☐ YES ☒ NO    If yes, Permitting authority \_\_\_\_\_

**G. Source-Wide PTE Restrictions and Generic Applicable Requirements**

Cite and describe any emissions-limiting requirements and/or facility-wide "generic" applicable requirements.

Permit No. V-ML-270950005-2009-01, Section 3.0 Facility-Wide Permit Requirements and

Section 4.0 Part 71 General Requirements

**H. Process Description**

List processes, products, and SIC codes for the facility.

Process	Products	SIC
Hotels and Motels		7011
Electricity Generation		4911

**I. Emission Unit Identification**

Assign an emissions unit ID and describe each emissions unit at the facility. Control equipment and/or alternative operating scenarios associated with emissions units should be listed on a separate line. Applicants may exclude from this list any insignificant emissions units or activities.

Emissions Unit ID	Description of Unit
001	Generator Set, 2000 kW, Main Casino
002	Generator Set, 2000 kW, Event Center
003	Generator Set, 1400 kW, Hotel
004	Generator Set, 1250 kW, Chiller
005	Emergency Generator Set, 500 kW, Laundry

**J. Facility Emissions Summary**

Enter potential to emit (PTE) for the facility as a whole for each air pollutant listed below. Enter the name of the single HAP emitted in the greatest amount and its PTE. For all pollutants stipulations to major source status may be indicated by entering "major" in the space for PTE. Indicate the total actual emissions for fee purposes for the facility in the space provided. Applications for permit modifications need not include actual emissions information.

NOx 240.4 tons/yr VOC 2.9 tons/yr SO2 0.1 tons/yr

PM-10 4.2 tons/yr CO 44.9 tons/yr Lead 0.0 tons/yr

Total HAP 0.1 tons/yr

Single HAP emitted in the greatest amount Benzene PTE 0.05 tons/yr

Total of regulated pollutants (for fee calculation), Sec. F, line 5 of form FEE 16 tons/yr

**Grand Casino Mille Lacs submitted its Annual Report and fee payment on October 4, 2013 for 2012 actual emissions.**

**K. Existing Federally-Enforceable Permits**

Permit number(s) V-ML-27095000005-2009-01 Permit type Title V Permitting authority EPA Region V

Permit number(s) \_\_\_\_\_ Permit type \_\_\_\_\_ Permitting authority \_\_\_\_\_

**L. Emission Unit(s) Covered by General Permits**

Emission unit(s) subject to general permit \_\_\_\_\_

Check one: ☐ Application made ☐ Coverage granted

General permit identifier \_\_\_\_\_ Expiration Date \_\_\_\_/\_\_\_\_/\_\_\_\_

**M. Cross-referenced Information**

Does this application cross-reference information? ☒ YES ☐ NO (If yes, see instructions)

INSTRUCTIONS FOLLOW



Federal Operating Permit Program (40 CFR Part 71)

### A. General Information

SIC Code (4-digit) 4911      SCC Code 20100102

Actual Heat Input \_\_\_\_\_ MM BTU/hr    Max. Design Heat Input \_\_\_\_\_ MM BTU/hr



**C. Fuel Data**Primary fuel type(s) Diesel Standby fuel type(s) N/A

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
Diesel	0.0015%	Negligible	137,000 Btu/gal

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	9,220 gallons	139.7 gallons	1,223,772 gallons

**E. Associated Air Pollution Control Equipment**Emissions unit ID 001 Device type Oxidation CatalystAir pollutant(s) Controlled Carbon Monoxide Manufacturer GTModel No. 201D1-3-2-5118-3 Serial No. 59369Installation date 10 / 1 / 2013 Control efficiency (%) >70%Efficiency estimation method Manufacturer's Specifications and Initial Performance Testing

**F. Ambient Impact Assessment**

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) <u>16</u>	Inside stack diameter (ft) <u>1.33</u>
Stack temp(°F) <u>958</u>	Design stack flow rate (ACFM) <u>16,040</u>
Actual stack flow rate (ACFM) <u>16,040</u>	Velocity (ft/sec) <u>192.4</u>

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OMB No. 2060-0336, Approval Expires 06/30/2015

Federal Operating Permit Program (40 CFR Part 71)

## EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)

### A. General Information

Emissions unit ID 002 Description Generator Set, Event Center

SIC Code (4-digit) 4911 SCC Code 20100102

## B. Emissions Unit Description

Primary use Peak load management and backup power Temporary Source Yes X No

Manufacturer Caterpillar Model No. 3516B

Serial Number CFDN1516 Installation Date      /      / 2004

Boiler Type: ☐ Industrial boiler ☐ Process burner ☐ Electric utility boiler

Other (describe) \_\_\_\_\_

Boiler horsepower rating \_\_\_\_\_ Boiler steam flow (lb/hr) \_\_\_\_\_

Type of Fuel-Burning Equipment (coal burning only):

Hand fired               Spreader stoker               Underfeed stoker               Overfeed stoker

☐ Traveling grate    ☐ Shaking grate    ☐ Pulverized, wet bed    ☐ Pulverized, dry bed

Actual Heat Input \_\_\_\_\_ MM BTU/hr    Max. Design Heat Input \_\_\_\_\_ MM BTU/hr

**C. Fuel Data**Primary fuel type(s) Diesel Standby fuel type(s) N/A

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
Diesel	0.0015%	Negligible	137,000 Btu/gal

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	8,242 gallons	139.7 gallons	1,223,772 gallons

**E. Associated Air Pollution Control Equipment**Emissions unit ID 002 Device type Oxidation CatalystAir pollutant(s) Controlled Carbon Monoxide Manufacturer GTModel No. 201D1-3-2-5118-3 Serial No. 59369Installation date 10 / 1 / 2013 Control efficiency (%) >70%Efficiency estimation method Manufacturer's Specifications and Initial Performance Testing

**F. Ambient Impact Assessment**

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) <u>16</u>	Inside stack diameter (ft) <u>1.33</u>
Stack temp(°F) <u>958</u>	Design stack flow rate (ACFM) <u>16,040</u>
Actual stack flow rate (ACFM) <u>16,040</u>	Velocity (ft/sec) <u>192.4</u>



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OMB No. 2060-0336, Approval Expires 06/30/2015

Federal Operating Permit Program (40 CFR Part 71)

### EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)

### A. General Information

Emissions unit ID 003 Description Generator Set, Hotel

SIC Code (4-digit) 4911 SCC Code 20100102

### **B. Emissions Unit Description**

Primary use Peak load management and backup power Temporary Source Yes X No

Manufacturer Caterpillar Model No. 3512B

Serial Number CMC00369 Installation Date      /      / 2001

Boiler Type: ☐ Industrial boiler ☐ Process burner ☐ Electric utility boiler

Other (describe) \_\_\_\_\_

Boiler horsepower rating \_\_\_\_\_ Boiler steam flow (lb/hr) \_\_\_\_\_

Type of Fuel-Burning Equipment (coal burning only):

☐ Hand fired      ☐ Spreader stoker      ☐ Underfeed stoker      ☐ Overfeed stoker

☐ Traveling grate    ☐ Shaking grate    ☐ Pulverized, wet bed    ☐ Pulverized, dry bed

Actual Heat Input \_\_\_\_\_ MM BTU/hr    Max. Design Heat Input \_\_\_\_\_ MM BTU/hr

**C. Fuel Data**Primary fuel type(s) Diesel Standby fuel type(s) N/A

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
Diesel	0.0015%	Negligible	137,000 Btu/gal

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	7,093 gallons	102.8 gallons	900,528 gallons

**E. Associated Air Pollution Control Equipment**

Emissions unit ID 003 Device type Oxidation Catalyst

Air pollutant(s) Controlled Carbon Monoxide Manufacturer GT

Model No. 201D1-2-2-5116-3 Serial No. 59368

Installation date 10 / 1 / 2013 Control efficiency (%) >70%

Efficiency estimation method Manufacturer's Specifications and Initial Performance Testing

**F. Ambient Impact Assessment**

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) <u>16</u>	Inside stack diameter (ft) <u>1.17</u>
Stack temp(°F) <u>912</u>	Design stack flow rate (ACFM) <u>11,696</u>
Actual stack flow rate (ACFM) <u>11,696</u>	Velocity (ft/sec) <u>182.3</u>

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OMB No. 2060-0336, Approval Expires 06/30/2015

Federal Operating Permit Program (40 CFR Part 71)

## EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)

### A. General Information

Emissions unit ID 004 Description Generator Set, Chiller

SIC Code (4-digit) 4911      SCC Code 20100102

## B. Emissions Unit Description

Primary use Peak load management and backup power Temporary Source Yes X No

Manufacturer Caterpillar Model No. 3512 DITA

Serial Number HCMJO1609 Installation Date / / 2005

Boiler Type: ☐ Industrial boiler ☐ Process burner ☐ Electric utility boiler

Other (describe) \_\_\_\_\_

Boiler horsepower rating \_\_\_\_\_ Boiler steam flow (lb/hr) \_\_\_\_\_

Type of Fuel-Burning Equipment (coal burning only):

☐ Hand fired      ☐ Spreader stoker      ☐ Underfeed stoker      ☐ Overfeed stoker

Traveling grate      Shaking grate      Pulverized, wet bed      Pulverized, dry bed

Actual Heat Input                      MM BTU/hr    Max. Design Heat Input \_\_\_\_\_ MM BTU/hr



**C. Fuel Data**Primary fuel type(s) Diesel Standby fuel type(s) N/A

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
Diesel	0.0015%	Negligible	137,000 Btu/gal

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	6,078 gallons	93.5 gallons	819,060 gallons

**E. Associated Air Pollution Control Equipment**

Emissions unit ID 004 Device type Oxidation Catalyst

Air pollutant(s) Controlled Carbon Monoxide Manufacturer Miratech

Model No. IQ Serial No. IQ2-28-14-EU1

Installation date 10 / 1 / 2013 Control efficiency (%) >70%

Efficiency estimation method Manufacturer's Specifications and Initial Performance Testing

**F. Ambient Impact Assessment**

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) <u>13.25</u>	Inside stack diameter (ft) <u>0.83</u>
Stack temp(°F) <u>1,007.1</u>	Design stack flow rate (ACFM) <u>10,799.2</u>
Actual stack flow rate (ACFM) <u>10,799.2</u>	Velocity (ft/sec) <u>330</u>

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Federal Operating Permit Program (40 CFR Part 71)

## EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)

Emissions unit ID 005 Description Emergency Generator Set, 500 kW, Laundry

SIC Code (4-digit) 4911 SCC Code 20100102

Primary use Emergency Generator Temporary Source \_\_\_ Yes X No

Manufacturer Detroit Diesel Model No. 12V92

Serial Number 4A03035 Installation Date    /   /1992

Boiler Type: \_\_\_ Industrial boiler \_\_\_ Process burner \_\_\_ Electric utility boiler  
Other (describe) \_\_\_\_\_

Boiler horsepower rating \_\_\_\_\_ Boiler steam flow (lb/hr) \_\_\_\_\_

Type of Fuel-Burning Equipment (coal burning only):  
\_\_\_ Hand fired \_\_\_ Spreader stoker \_\_\_ Underfeed stoker \_\_\_ Overfeed stoker  
\_\_\_ Traveling grate \_\_\_ Shaking grate \_\_\_ Pulverized, wet bed \_\_\_ Pulverized, dry bed

Actual Heat Input \_\_\_\_\_ MM BTU/hr Max. Design Heat Input \_\_\_\_\_ MM BTU/hr

**C. Fuel Data**Primary fuel type(s) Diesel Standby fuel type(s) N/A

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
Diesel	0.0015%	Negligible	137,000 Btu/gal

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
Diesel	167 gallons	27.8 gallons	13,900 gallons

**E. Associated Air Pollution Control Equipment**

Emissions unit ID \_\_\_\_\_ Device type \_\_\_\_\_

Air pollutant(s) Controlled \_\_\_\_\_ Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Installation date \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Control efficiency (%) \_\_\_\_\_

Efficiency estimation method \_\_\_\_\_

**F. Ambient Impact Assessment**

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) _____.	Inside stack diameter (ft) _____.
Stack temp(°F) _____.	Design stack flow rate (ACFM) _____.
Actual stack flow rate (ACFM) _____.	Velocity (ft/sec) _____.



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## Attachment to Form EUD-1

### C. Fuel Data

Fuel data was provided by the oil supplier, BP Products North America. The fuel specifications are attached.

The heating value of 137,000 Btu/gal and density of 7.05 lb/gal for diesel fuel are from Appendix A of AP-42.

### D. Fuel Usage Rates

Annual Actual Usage of diesel fuel for each engine was estimated by multiplying the maximum hourly fuel usage rate by the number of RY2013 operating hours.

Engine 001:	66 hr/yr * 139.7 gal/hr = 9,220 gallons/year
Engine 002:	59 hr/yr * 139.7 gal/hr = 8,242 gallons/year
Engine 003:	69 hr/yr * 102.8 gal/hr = 7,093 gallons/year
Engine 004:	65 hr/yr * 93.5 gal/hr = 6,078 gallons/year
Engine 005:	6 hr/yr * 27.8 gal/hr = 167 gallons/year

### F. Ambient Impact Assessment

An ambient impact assessment for the engines was submitted with the PSD construction permit application.

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# Material Safety Data Sheet



## 1. Product and company identification

**Product name** DIESEL FUEL NO. 2

**MSDS #** 11155

**Code** 11155

**Product use** Fuel.

**Synonyms** Ultra Low Sulfur No. 2 Amoco Premier Diesel Fuel, Ultra Low Sulfur No. 2 Amoco Premier Diesel Fuel – Winterized, Ultra Low Sulfur No. 2 BP Supreme Diesel, Low Sulfur No. 2 BP Diesel Fuel, Ultra Low Sulfur No. 2 BP Diesel Fuel, Ultra Low Sulfur No. 2 BP Diesel Fuel – Winterized

**Supplier** BP Products North America Inc.  
150 West Warrenville Road  
Naperville, Illinois 60563-8460  
USA

**EMERGENCY HEALTH INFORMATION:** 1 (800) 447-8735  
Outside the US: +1 703-527-3887 (CHEMTREC)

**EMERGENCY SPILL INFORMATION:** 1 (800) 424-9300 CHEMTREC (USA)

**OTHER PRODUCT INFORMATION** 1 (866) 4 BP - MSDS  
(866-427-6737 Toll Free - North America)  
email: bpcares@bp.com

## 2. Hazards identification

**Physical state** Liquid.

**Color** Colorless. to Various Colors. (May be dyed Red., Light Green. ,Yellow. )

**Emergency overview** WARNING !  
COMBUSTIBLE LIQUID AND VAPOR.  
VAPOR MAY CAUSE FLASH FIRE.  
HARMFUL IF SWALLOWED.  
ASPIRATION HAZARD.  
HARMFUL OR FATAL IF LIQUID IS ASPIRATED INTO LUNGS.  
MAY CAUSE RESPIRATORY TRACT IRRITATION.  
INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS, AND NAUSEA, AND MAY LEAD TO UNCONSCIOUSNESS.  
  
Combustible liquid. Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage. Keep away from heat, sparks and flame. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. If ingested, do not induce vomiting. Avoid contact with eyes, skin and clothing. Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

**Routes of entry** Dermal contact. Eye contact. Inhalation. Ingestion.

**Potential health effects**

**Eyes** Slightly irritating to the eyes.

**Skin** Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

**Inhalation** May cause respiratory tract irritation. Inhalation causes headaches, dizziness, drowsiness and nausea and may lead to unconsciousness. See toxicological information (section 11).

Product name DIESEL FUEL NO. 2

Product code 11155

Page: 1/8

Version 2 Date of issue 07/20/2010.

Format US-COMP

Language ENGLISH.

(US-COMP)

(ENGLISH)

**Ingestion**

Harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage. See toxicological information (section 11).

See toxicological information (section 11)

### 3. Composition/information on ingredients

Ingredient name	CAS #	%
Petroleum distillates (Diesel Fuel No. 2)	68476-34-6	95 - 100
Contains one or more of the following biodiesels:	Varies	0 - 5
soybean oil, me ester	67784-80-9	.
Fatty acids, sunflower-oil, Me esters	68919-54-0	.
Fatty acids methyl esters	67762-38-3	.
Fatty acids, vegetable-oil, Methyl esters	68990-52-3	.
rape oil, me ester	73891-99-3	.
Fatty acids, canola-oil, Me esters	129828-16-6	.
fatty acids, tallow, me esters	61788-61-2	.
Contains:		
Naphthalene	91-20-3	1 - 3
May also contain small quantities of proprietary performance additives.		

### 4. First aid measures

Eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

### 5. Fire-fighting measures

Flammability of the product	Combustible liquid.
Auto-ignition temperature	257°C (494°F)
Flash point	Closed cup: >38°C (>100.4°F) [Pensky-Martens.]
Explosion limits	Lower: 0.6% Upper: 7.5%
Fire/explosion hazards	Combustible liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
Unusual fire/explosion hazards	Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
<b>Extinguishing media</b>	
Suitable	In case of fire, use water fog, foam, dry chemicals, or carbon dioxide.
Not suitable	Do not use water jet.
Fire-fighting procedures	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Hazardous combustion products	Combustion products may include the following: carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide)
Protective clothing (fire)	

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Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Special remarks on fire hazards**

Do not use water jet.

## 6. Accidental release measures

**Environmental precautions**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Personal protection in case of a large spill**

Chemical splash goggles. Chemical-resistant protective suit. Boots. Chemical-resistant gloves. Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Suggested protective clothing might not be adequate. Consult a specialist before handling this product. CAUTION: The protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are not known, or if concentrations exceed the protection limits of air-purifying respirator.

**Methods for cleaning up**

**Large spill**

Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

**Small spill**

Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

## 7. Handling and storage

**Handling**

Do not ingest. Never siphon by mouth. If ingested, do not induce vomiting. Put on appropriate personal protective equipment (see section 8). Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

**Storage**

Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10). Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

**Occupational exposure limits**

**Ingredient name**

**Occupational exposure limits**

Petroleum distillates

**ACGIH TLV (United States). Absorbed through skin.**

TWA: 100 mg/m<sup>3</sup>, (measured as total hydrocarbons) 8 hour(s). Issued/Revised: 1/2002 Form: Total hydrocarbons

Naphthalene

**ACGIH TLV (United States).**

STEL: 79 mg/m<sup>3</sup> 15 minute(s). Issued/Revised: 5/1996

STEL: 15 ppm 15 minute(s). Issued/Revised: 5/1996

TWA: 52 mg/m<sup>3</sup> 8 hour(s). Issued/Revised: 5/1996

TWA: 10 ppm 8 hour(s). Issued/Revised: 5/1996

**OSHA PEL (United States).**

TWA: 50 mg/m<sup>3</sup> 8 hour(s). Issued/Revised: 6/1993

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While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

**Some states may enforce more stringent exposure limits.**

<b>Control Measures</b>	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
<b>Hygiene measures</b>	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
<b>Personal protection</b>	
<b>Eyes</b>	Avoid contact with eyes. Safety glasses with side shields.
<b>Skin and body</b>	Avoid contact with skin and clothing. Wear suitable protective clothing.
<b>Respiratory</b>	Use only with adequate ventilation. Do not breathe vapor or mist. If ventilation is inadequate, use a NIOSH-certified respirator with an organic vapor cartridge and P95 particulate filter.  CAUTION: The protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are not known, or if concentrations exceed the protection limits of air-purifying respirator.
<b>Hands</b>	Wear gloves that cannot be penetrated by chemicals or oil.  The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.  Consult your supervisor or Standard Operating Procedure (S.O.P) for special handling instructions.

## 9. Physical and chemical properties

<b>Physical state</b>	Liquid.
<b>Color</b>	Colorless. to Various Colors. (May be dyed Red., Light Green. , Yellow. )
<b>Odor</b>	Petroleum
<b>Flash point</b>	Closed cup: >38°C (>100.4°F) [Pensky-Martens.]
<b>Explosion limits</b>	Lower: 0.6% Upper: 7.5%
<b>Auto-ignition temperature</b>	257°C (494°F)
<b>Specific gravity</b>	<1 [Water = 1]
<b>Density</b>	820 to 875 kg/m <sup>3</sup> (0.82 to 0.875 g/cm <sup>3</sup> )
<b>Viscosity</b>	Kinematic: 1.7 to 4.1 mm <sup>2</sup> /s (1.7 to 4.1 cSt) at 40°C
<b>Solubility</b>	negligible <0.1%

## 10. Stability and reactivity

<b>Stability and reactivity</b>	Stable under recommended storage and handling conditions (see section 7).
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	Keep away from heat, sparks and flame. Avoid all possible sources of ignition (spark or flame).
<b>Incompatibility with various substances</b>	Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis. halogenated compounds.

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**Hazardous decomposition products** carbon oxides (CO, CO<sub>2</sub>) (carbon monoxide, carbon dioxide)

**Hazardous polymerization** Under normal conditions of storage and use, hazardous polymerization will not occur.

## 11. Toxicological information

### Acute toxicity

#### Classification

Product/ingredient name	IARC	NTP	OSHA
Naphthalene	2B	Possible	-
fuel, diesel no. 2	3	-	-

#### IARC :

2B - Possible carcinogen to human.

3 - Not classifiable as a human carcinogen.

#### NTP :

Possible - Reasonably anticipated to be human carcinogens.

#### Other Toxicity Data

Aspiration of this product into the lungs can cause chemical pneumonia and can be fatal. Aspiration into the lungs can occur while vomiting after ingestion of this product. Do not siphon by mouth.

Middle distillate: From skin-painting studies of petroleum distillates of similar composition and distillate range, it has been shown that these types of materials often possess weak carcinogenic activity in laboratory animals. In these tests, the material is painted on the shaved backs of mice twice a week for their lifetime. The material is not washed off between applications. Therefore, there may be a potential risk of skin cancer from prolonged or repeated skin contact with this product in the absence of good personal hygiene. This particular product has not been tested for carcinogenic activity, but we have chosen to be cautious in light of the findings with other distillate streams.

Occasional skin contact with this product is not expected to have serious effects, but good personal hygiene should be practiced and repeated skin contact avoided. This product can also be expected to produce skin irritation upon prolonged or repeated skin contact. Personal hygiene measures taken to prevent skin irritation are expected to be adequate to prevent risk of skin cancer.

Diesel exhaust particulates have been classified by the National Toxicological Program (NTP) to be a reasonably anticipated human carcinogen. Exposure should be minimized to reduce potential risk.

Naphthalene has been reported to cause developmental toxicity in mice after oral exposure to relatively high dose levels, but developmental toxicity was not observed in NTP (National Toxicology Program) sponsored studies in rats and rabbits. Ingestion or inhalation of naphthalene can result in hemolysis and other blood abnormalities, and individuals (and infants) deficient in glucose-6-phosphate dehydrogenase may be especially susceptible to these effects. Inhalation of naphthalene may cause headache and nausea. Airborne exposure can result in eye irritation. Naphthalene exposure has been associated with cataracts in animals and humans.

#### Other information

#### Potential chronic health effects

<b>Carcinogenicity</b>	Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.
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## 12. Ecological information

### Ecotoxicity

No testing has been performed by the manufacturer.

<b>Mobility</b>	Spillages may penetrate the soil causing ground water contamination.
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<b>Bioaccumulative potential</b>	This product is not expected to bioaccumulate through food chains in the environment.
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### 13. Disposal considerations

**Waste information**

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**NOTE:** The generator of waste has the responsibility for proper waste identification (based on characteristic(s) or listing), transportation and disposal

### 14. Transport information

**International transport regulations**

Regulatory information	UN number	Proper shipping name	Class	Packing group	Additional information
DOT Classification	NA 1993	Diesel fuel	3	III	-
TDG Classification	UN 1202	Gas oil	3	III	-
IMDG Classification	UN 1202	Gas oil	3	III	<b>Remarks</b> Marine pollutant
IATA/ICAO Classification	UN 1202	Gas oil	3	III	<b>Remarks</b> Environmentally hazardous substance mark.

### 15. Regulatory information

**U.S. Federal Regulations**

United States inventory  
(TSCA 8b)

All components are listed or exempted.

TSCA 12(b) one-time export: Naphthalene

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.

**SARA 302/304 emergency planning and notification:** No products were found.

**SARA 302/304/311/312 hazardous chemicals:** Naphthalene

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** DIESEL FUEL  
NO. 2: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

**SARA 313**

	Product name	CAS number	Concentration
Form R - Reporting requirements	Naphthalene	91-20-3	1.0035 - 3.0111
Supplier notification	Naphthalene	91-20-3	1.0035 - 3.0111
CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):	CERCLA: Hazardous substances.: o-Xylene: 1000 lbs. (454 kg); Naphthalene: 100 lbs. (45.4 kg); benzo[def]chrysene: 1 lb. (0.454 kg); Ethylbenzene: 1000 lbs. (454 kg); xylene: 100 lbs. (45.4 kg); Cumene: 5000 lbs. (2270 kg); Phenol: 1000 lbs. (454 kg); Benzene: 10 lbs. (4.54 kg); Alkylaryl sulfonic acid: 1000 lbs. (454 kg); Toluene: 1000 lbs. (454 kg); Methanol: 5000 lbs. (2270 kg); 2-Butoxyethanol;		

**State regulations**

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**Massachusetts  
Substances**

The following components are listed: NAPHTHALENE

**New Jersey Hazardous  
Substances**

The following components are listed: DIESEL FUEL; # 2 HEATING OIL; NAPHTHALENE; MOTH FLAKES

**Pennsylvania RTK  
Hazardous Substances**

The following components are listed: NAPHTHALENE

**California Prop. 65**

**WARNING:** This product contains a chemical known to the State of California to cause cancer. Naphthalene; Ethylbenzene; benzo[def]chrysene

**WARNING:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Toluene

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. Benzene

Prop 65 chemicals will result under certain conditions from the use of this material. For example, burning fuels produces combustion products including diesel exhaust, a Prop 65 carcinogen, and carbon monoxide, a Prop 65 reproductive toxin.

**Inventories**

Canada inventory	Not determined.
Europe inventory	At least one component is not listed.
Australia inventory (AICS)	At least one component is not listed.
China inventory (IECSC)	Not determined.
Japan inventory (ENCS)	At least one component is not listed.
Korea inventory (KECI)	At least one component is not listed.
Philippines inventory (PICCS)	At least one component is not listed.

**16. Other information****Label requirements**

WARNING !

COMBUSTIBLE LIQUID AND VAPOR.  
VAPOR MAY CAUSE FLASH FIRE.  
HARMFUL IF SWALLOWED.  
ASPIRATION HAZARD.  
HARMFUL OR FATAL IF LIQUID IS ASPIRATED INTO LUNGS.  
MAY CAUSE RESPIRATORY TRACT IRRITATION.  
INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS, AND NAUSEA, AND MAY LEAD TO UNCONSCIOUSNESS.

**HMIS® Rating :**

Health \* 1  
Flammability 2  
Physical 0  
Hazard  
Personal X  
protection

National Fire  
Protection  
Association (U.S.A.)

Health  Fire hazard  
Instability  
Specific hazard

**History**

Date of issue 07/20/2010.  
Date of previous issue 07/20/2010.  
Prepared by Product Stewardship  
Notice to reader

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All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.

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**Federal Operating Permit Program (40 CFR Part 71)**
**INSIGNIFICANT EMISSIONS (IE)**

On this page list each insignificant activity or emission unit. In the "number" column, indicate the number of units in this category. Descriptions should be brief but unique. Indicate which emissions criterion of part 71 is the basis for the exemption.

Number	Description of Activities or Emissions Units	RAP, except HAP	HAP
1	Generator 1, Casino Diesel Fuel Tank (3,400 gal)	X	X
1	Generator 2, Event Center Diesel Fuel Tank (3,250 gal)	X	X
1	Generator 3, Hotel Diesel Fuel Tank (2,400 gal)	X	X
1	Generator 4, Chiller Diesel Fuel Tank (2,400 gal)	X	X
1	Diesel Fuel Tank (1,000 gal)	X	X
1	Laundry Generator Diesel Fuel Tank (150 gal)	X	X
1	Gasoline Fuel Tank (500 gal)	X	X
6	Used Cooking Oil Grease Tank (250 gal each)	X	X

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Federal Operating Permit Program (40 CFR Part 71)

**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** 001

**B. Identification and Quantification of Emissions**

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
NOx	1.9	68.2	10.2	
CO	0.0	5.3	0.8	
VOC	0.0	1.0	0.2	
PM	0.0	0.8	0.1	
PM10	0.0	0.6	0.1	
PM2.5	0.0	0.6	0.1	
SO2	0.0	0.0	0.0	
HAP1 - Benzene	0.0	0.0	0.0	71432
HAP2 - Toluene	0.0	0.0	0.0	108883

**Federal Operating Permit Program (40 CFR Part 71)**

**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** 001

**B. Identification and Quantification of Emissions**

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
HAP3 - Xylenes	0.0	0.0	0.0	1330207
HAP4 - Formaldehyde	0.0	0.0	0.0	50000
HAP5 - Acetaldehyde	0.0	0.0	0.0	75070
HAP6 - Acrolein	0.0	0.0	0.0	107028
HAP7 - Naphthalene	0.0	0.0	0.0	91203

**Federal Operating Permit Program (40 CFR Part 71)**
**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** 002

**B. Identification and Quantification of Emissions**

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
NOx	1.5	68.2	10.2	
CO	0.0	5.3	0.8	
VOC	0.0	1.0	0.2	
PM	0.0	0.8	0.1	
PM10	0.0	0.6	0.1	
PM2.5	0.0	0.6	0.1	
SO2	0.0	0.0	0.0	
HAP1 - Benzene	0.0	0.0	0.0	71432
HAP2 - Toluene	0.0	0.0	0.0	108883



Federal Operating Permit Program (40 CFR Part 71)

**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** 002

**B. Identification and Quantification of Emissions**

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
HAP3 - Xylenes	0.0	0.0	0.0	1330207
HAP4 - Formaldehyde	0.0	0.0	0.0	50000
HAP5 - Acetaldehyde	0.0	0.0	0.0	75070
HAP6 - Acrolein	0.0	0.0	0.0	107028
HAP7 - Naphthalene	0.0	0.0	0.0	91203

**Federal Operating Permit Program (40 CFR Part 71)**
**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** 003

**B. Identification and Quantification of Emissions**

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
NOx	1.3	50.5	7.6	
CO	0.0	11.2	1.7	
VOC	0.1	1.5	0.2	
PM	0.0	0.7	0.1	
PM10	0.0	0.6	0.1	
PM2.5	0.0	0.5	0.1	
SO2	0.0	0.0	0.0	
HAP1 - Benzene	0.0	0.0	0.0	71432
HAP2 - Toluene	0.0	0.0	0.0	108883

Federal Operating Permit Program (40 CFR Part 71)

**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** 003

**B. Identification and Quantification of Emissions**

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
HAP3 - Xylenes	0.0	0.0	0.0	1330207
HAP4 - Formaldehyde	0.0	0.0	0.0	50000
HAP5 - Acetaldehyde	0.0	0.0	0.0	75070
HAP6 - Acrolein	0.0	0.0	0.0	107028
HAP7 - Naphthalene	0.0	0.0	0.0	91203

**Federal Operating Permit Program (40 CFR Part 71)**
**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** 004

**B. Identification and Quantification of Emissions**

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
NOx	1.2	47.7	209.1	
CO	0.0	9.3	40.9	
VOC	0.0	0.5	2.3	
PM	0.0	1.1	4.7	
PM10	0.0	0.9	3.9	
PM2.5	0.0	0.9	3.8	
SO2	0.0	0.0	0.1	
HAP1 - Benzene	0.0	0.0	0.0	71432
HAP2 - Toluene	0.0	0.0	0.0	108883

Federal Operating Permit Program (40 CFR Part 71)

**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** 004

**B. Identification and Quantification of Emissions**

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
HAP3 - Xylenes	0.0	0.0	0.0	1330207
HAP4 - Formaldehyde	0.0	0.0	0.0	50000
HAP5 - Acetaldehyde	0.0	0.0	0.0	75070
HAP6 - Acrolein	0.0	0.0	0.0	107028
HAP7 - Naphthalene	0.0	0.0	0.0	91203

**Federal Operating Permit Program (40 CFR Part 71)**
**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** 005

**B. Identification and Quantification of Emissions**

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
NOx	0.0	13.1	3.3	
CO	0.0	3.0	0.8	
VOC	0.0	0.4	0.1	
PM	0.0	0.4	0.1	
PM10	0.0	0.3	0.1	
PM2.5	0.0	0.3	0.1	
SO2	0.0	0.0	0.0	
HAP1 - Benzene	0.0	0.0	0.0	71432
HAP2 - Toluene	0.0	0.0	0.0	108883

Federal Operating Permit Program (40 CFR Part 71)

**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** 005

**B. Identification and Quantification of Emissions**

First, list each air pollutant that is either regulated at the unit or present in major amounts, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. You may round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
HAP3 - Xylenes	0.0	0.0	0.0	1330207
HAP4 - Formaldehyde	0.0	0.0	0.0	50000
HAP5 - Acetaldehyde	0.0	0.0	0.0	75070
HAP6 - Acrolein	0.0	0.0	0.0	107028
HAP7 - Naphthalene	0.0	0.0	0.0	91203

**Grand Casino Mille Lacs**  
**Title V Permit Renewal Application**  
**Emissions Calculations - Criteria Pollutants**

**Engine 001:** 2884.9 bhp  
 3516B Caterpillar 2000 kW  
 Main Casino 139.7 gal/hr

	Unrestricted Potential to Emit		Limited Potential to Emit (tons/yr)	RY2013 Actual Operation (hr/yr)	RY2013 Actual Emissions	
	(lb/hr)	(tons/yr)			(lb/hr)	(ton/yr)
NOx	68.16	298.54	10.22	66	57.70	1.90
CO	5.31	23.26	0.80	66	0.22	0.01
VOC	0.97	4.25	0.15	66	0.97	0.03
PM	0.76	3.33	0.11	66	0.76	0.03
PM10	0.62	2.74	0.09	66	0.62	0.02
PM2.5	0.61	2.66	0.09	66	0.61	0.02
SO2	0.03	0.13	0.00	66	0.03	0.00

Potential to Emit NOx emission factors are based on current permit limits.

Potential to Emit CO emission factor was provided by Ziegler for a Caterpillar 3516B Engine.

RY2013 Actual Emission NOx and CO emission factors are from November 4-7, 2013 Performance Test.

Emission factors for VOC, and PM were provided by Ziegler for a Caterpillar 3516B engine.

VOC measured as hydrocarbons. Based on 100 percent load.

PM10 is calculated based on the fraction of PM10 in PM provided in AP-42, Table 3.4-2, multiplied by the emission factor for PM provided by the engine manufacturer.

$$0.62 \text{ lb PM}_{10}/\text{hr} = 0.0573 \text{ lb PM}_{10}/\text{MMBtu} / 0.0697 \text{ lb PM}/\text{MMBtu} * 0.76 \text{ lb PM}/\text{hr}$$

PM2.5 is calculated based on the combined filterable particulate fraction of <3.0  $\mu\text{m}$  and condensable particulate fraction in the PM, provided in AP-42, Table 3.4-2, multiplied by the emission factor for PM provided by the engine manufacturer.

$$0.61 \text{ lb PM}_{2.5}/\text{hr} = (0.0479 \text{ lb PM}_{3.0}/\text{MMBtu} + 0.0077 \text{ lb PM}_{\text{con}}/\text{MMBtu}) / 0.0697 \text{ lb PM}/\text{MMBtu} * 0.76 \text{ lb PM}/\text{hr}$$

$$\text{SO}_2(\text{lb/hr}) = 139.7 \text{ gal/hr} * 7.05 \text{ lb/gal fuel density} * 0.0015 \text{ part S}/100 \text{ part fuel} * \text{lbmol S}/32 \text{ lb S} * 64 \text{ lb SO}_2/\text{lbmol SO}_2$$

Limited Potential to Emit Emissions are based on 300 hours per year.



**Grand Casino Mille Lacs**  
**Title V Permit Renewal Application**  
**Emissions Calculations - Criteria Pollutants**

**Engine 002:** 2884.9 bhp  
 3516B Caterpillar 2000 kW  
 Event Center 139.7 gal/hr

	Unrestricted Potential to Emit		Limited Potential to Emit (tons/yr)	RY2013 Actual Operation (hr/yr)	RY2013 Actual Emissions	
	(lb/hr)	(tons/yr)			(lb/hr)	(ton/yr)
NOx	68.16	298.54	10.22	59	50.89	1.50
CO	5.31	23.26	0.80	59	0.34	0.01
VOC	0.97	4.25	0.15	59	0.97	0.03
PM	0.76	3.33	0.11	59	0.76	0.02
PM10	0.62	2.74	0.09	59	0.62	0.02
PM2.5	0.61	2.66	0.09	59	0.61	0.02
SO2	0.03	0.13	0.00	59	0.03	0.00

Potential to Emit NOx emission factors are based on current permit limits.

Potential to Emit CO emission factor was provided by Ziegler for a Caterpillar 3516B Engine.

RY2013 Actual Emission NOx and CO emission factors are from November 4-7, 2013 Performance Test.

Emission factors for VOC, and PM were provided by Ziegler for a Caterpillar 3516B engine.

VOC measured as hydrocarbons. Based on 100 percent load.

PM10 is calculated based on the fraction of PM10 in PM provided in AP-42, Table 3.4-2, multiplied by the emission factor for PM provided by the engine manufacturer.

$$0.62 \text{ lb PM10/hr} = 0.0573 \text{ lb PM10/MMBtu} / 0.0697 \text{ lb PM/MMBtu} * 0.76 \text{ lb PM/hr}$$

PM2.5 is calculated based on the combined filterable particulate fraction of <3.0 µm and condensable particulate fraction in the PM, provided in AP-42, Table 3.4-2, multiplied by the emission factor for PM provided by the engine manufacturer.

$$0.61 \text{ lb PM2.5/hr} = (0.0479 \text{ lb PM3.0/MMBtu} + 0.0077 \text{ lb PMcon/MMBtu}) / 0.0697 \text{ lb PM/MMBtu} * 0.76 \text{ lb PM/hr}$$

$$\text{SO2(lb/hr)} = 139.7 \text{ gal/hr} * 7.05 \text{ lb/gal fuel density} * 0.0015 \text{ part S/100 part fuel} * \text{lbmol S/32 lb S} * 64 \text{ lb SO2/lbmol SO2}$$

Limited Potential to Emit Emissions are based on 300 hours per year.

**Grand Casino Mille Lacs  
Title V Permit Renewal Application  
Emissions Calculations - Criteria Pollutants**

**Engine 003:** 2058.9 bhp  
3512B Caterpillar 1400 kW  
Hotel 102.8 gal/hr

	Unrestricted Potential to Emit		Limited Potential to Emit	RY2013 Actual Operation	RY2013 Actual Emissions	
	(lb/hr)	(tons/yr)	(tons/yr)		(lb/hr)	(ton/yr)
NOx	50.49	221.15	7.57	69	37.57	1.30
CO	11.15	48.84	1.67	69	0.11	0.00
VOC	1.53	6.70	0.23	69	1.53	0.05
PM	0.68	2.98	0.10	69	0.68	0.02
PM10	0.56	2.45	0.08	69	0.56	0.02
PM2.5	0.54	2.38	0.08	69	0.54	0.02
SO2	0.02	0.10	0.00	69	0.02	0.00

Potential to Emit NOx emission factors are based on current permit limits.

Potential to Emit CO emission factor was provided by Ziegler for a Caterpillar 3512B Engine.

RY2013 Actual Emission NOx and CO emission factors are from November 4-7, 2013 Performance Test.

Emission factors for VOC, and PM were provided by Ziegler for a Caterpillar 3512B engine.

VOC measured as hydrocarbons. Based on 100 percent load.

PM10 is calculated based on the fraction of PM10 in PM provided in AP-42, Table 3.4-2,

multiplied by the emission factor for PM provided by the engine manufacturer.

$0.56 \text{ lb PM}_{10}/\text{hr} = 0.0573 \text{ lb PM}_{10}/\text{MMBtu} / 0.0697 \text{ lb PM}/\text{MMBtu} * 0.68 \text{ lb PM}/\text{hr}$

PM2.5 is calculated based on the combined filterable particulate fraction of  $<3.0 \mu\text{m}$  and condensable particulate fraction in the PM, provided in AP-42, Table 3.4-2, multiplied by the emission factor for PM provided by the engine manufacturer.

$0.54 \text{ lb PM}_{2.5}/\text{hr} = (0.0479 \text{ lb PM}_{3.0}/\text{MMBtu} + 0.0077 \text{ lb PM}_{\text{con}}/\text{MMBtu}) / 0.0697 \text{ lb PM}/\text{MMBtu} * 0.68 \text{ lb PM}/\text{hr}$

$\text{SO}_2(\text{lb}/\text{hr}) = 102.8 \text{ gal}/\text{hr} * 7.05 \text{ lb}/\text{gal} \text{ fuel density} * 0.0015 \text{ part S}/100 \text{ part fuel} * \text{lbmol S}/32 \text{ lb S} * 64 \text{ lb SO}_2/\text{lbmol SO}_2$ .

Limited Potential to Emit Emissions are based on 300 hours per year.

**Grand Casino Mille Lacs  
Title V Permit Renewal Application  
Emissions Calculations - Criteria Pollutants**

**Engine 004:** 1818 bhp  
3512DITA Caterpillar 1250 kW  
Chiller 93.5 gal/hr

	Potential to Emit		RY2013 Actual Operation (hr/yr)	RY2013 Actual Emissions	
	(lb/hr)	(tons/yr)		(lb/hr)	(ton/yr)
NOx	47.74	209.10	65	36.00	1.17
CO	9.33	40.87	65	0.26	0.01
VOC	0.53	2.32	65	0.53	0.02
PM	1.08	4.73	65	1.08	0.04
PM10	0.89	3.89	65	0.89	0.03
PM2.5	0.86	3.77	65	0.86	0.03
SO2	0.02	0.09	65	0.02	0.00

Potential to Emit NOx and CO emission factors were provided by Ziegler for a Caterpillar 3512DITA engine. RY2013 Actual Emissions NOx emission factor is from October 19, 2009 Initial Performance Test Report. RY2013 Actual Emissions CO emission factor is from November 4-7, 2013 Performance Test. Emission factors for VOC, and PM were provided by Ziegler for a Caterpillar 3512DITA engine. VOC measured as hydrocarbons. Based on 100 percent load.

PM10 is calculated based on the fraction of PM10 in PM provided in AP-42, Table 3.4-2, multiplied by the emission factor for PM provided by the engine manufacturer.  
 $0.89 \text{ lb PM}_{10}/\text{hr} = 0.0573 \text{ lb PM}_{10}/\text{MMBtu} / 0.0697 \text{ lb PM}/\text{MMBtu} * 1.08 \text{ lb PM}/\text{hr}$

PM2.5 is calculated based on the combined filterable particulate fraction of  $<3.0 \mu\text{m}$  and condensable particulate fraction in the PM, provided in AP-42, Table 3.4-2, multiplied by the emission factor for PM provided by the engine manufacturer.  
 $0.86 \text{ lb PM}_{2.5}/\text{hr} = (0.0479 \text{ lb PM}_{3.0}/\text{MMBtu} + 0.0077 \text{ lb PM}_{\text{con}}/\text{MMBtu}) / 0.0697 \text{ lb PM}/\text{MMBtu} * 1.08 \text{ lb PM}/\text{hr}$

$\text{SO}_2(\text{lb}/\text{hr}) = 93.5 \text{ gal}/\text{hr} * 7.05 \text{ lb}/\text{gal fuel density} * 0.0015 \text{ part S}/100 \text{ part fuel} * \text{lbmol S}/32 \text{ lb S} * 64 \text{ lb SO}_2/\text{lbmol SO}_2$ .

**Grand Casino Mille Lacs****Title V Permit Renewal Application****Emissions Calculations - Criteria Pollutants**

**Engine 005:** 545 hp  
 12V92 Detroit Diesel 500 kW  
 Laundry 27.8 gal/hr (estimated)

	Potential to Emit			RY2013 Actual Operation (hr/yr)	RY2013 Actual Emissions (ton/yr)
	(lb/hp-hr)	(lb/hr)	(tons/yr)		
NOx	0.024	13.08	3.27	6	0.04
CO	5.50E-03	3.00	0.75	6	0.01
VOC	0.0006416	0.35	0.09	6	0.00
PM	0.0007	0.38	0.10	6	0.00
PM10	0.0006	0.31	0.08	6	0.00
PM2.5	0.0006	0.30	0.08	6	0.00
SO2	1.214E-05	0.01	0.00	6	0.00

NOx, CO, VOC, PM, and SO2 emission factors are based on AP-42, Table 3.4-1.

NOx emission factor is assumed to be uncontrolled.

VOC emission factor is less methane.

PM10 is calculated based on the fraction of PM10 in PM provided in AP-42, Table 3.4-2, multiplied by the emission factor for AP-42 PM emission factor.

$$0.31 \text{ lb PM10/hr} = 0.0573 \text{ lb PM10/MMBtu} / 0.0697 \text{ lb PM/MMBtu} * 0.38 \text{ lb PM/hr}$$

PM2.5 is calculated based on the combined filterable particulate fraction of <3.0  $\mu\text{m}$  and condensable particulate fraction in the PM, provided in AP-42, Table 3.4-2, multiplied by the emission factor for AP-42 PM emission factor.

$$0.30 \text{ lb PM2.5/hr} = (0.0479 \text{ lb PM3.0/MMBtu} + 0.0077 \text{ lb PMcon/MMBtu}) / 0.0697 \text{ lb PM/MMBtu} * 0.38 \text{ lb PM/hr}$$

SO2 emission factor is multiplied by the fuel's sulfur content as described in AP-42, Table 3.4-1

Potential to Emit Emissions are based on 500 hours per year.

The fuel consumption rate is estimated based on conversion factors from AP-42:

$$27.8 \text{ gal/hr} = 545 \text{ hp} * (7000 \text{ Btu/hp-hr}) / (137,000 \text{ Btu/gal})$$

**TOTAL FOR ALL FIVE ENGINES:**

	Unrestricted Potential to Emit		Limited Potential to Emit (tons/yr)	RY2013 Actual Emissions	
	(lb/hr)	(tons/yr)		(lb/hr)	(ton/yr)
NOx	247.63	1030.60	240.39	195.24	5.91
CO	34.10	136.97	44.88	3.93	0.04
VOC	4.35	17.61	2.93	4.35	0.13
PM	3.66	14.46	5.16	3.66	0.11
PM10	3.01	11.89	4.24	3.01	0.09
PM2.5	2.92	11.54	4.11	2.92	0.09
SO2	0.11	0.44	0.10	0.11	0.00

**Grand Casino Mille Lacs**  
**Title V Permit Renewal Application**  
**Emissions Calculations - Hazardous Air Pollutants (HAPs)**

**Engine 001:** 2884.9 bhp  
 3516B Caterpillar 2000 kW  
 Main Casino 139.7 gal/hr

HAPs:	Emission Factors	Unrestricted Potential to Emit		Limited Emissions	RY2013 Actual Operation	RY2013 Actual Emissions
	(lb/MMBtu)	(lb/hr)	(tons/yr)	(tons/yr)	(hr/yr)	(ton/yr)
Benzene	7.76E-04	0.0149	0.0651	0.0022	65.65	4.88E-04
Toluene	2.81E-04	0.0054	0.0236	0.0008	65.65	1.77E-04
Xylenes	1.93E-04	0.0037	0.0162	0.0006	65.65	1.21E-04
Formaldehyde	7.89E-05	0.0015	0.0066	0.0002	65.65	4.96E-05
Acetaldehyde	2.52E-05	0.0005	0.0021	0.0001	65.65	1.58E-05
Acrolein	7.88E-06	0.0002	0.0007	0.0000	65.65	4.95E-06
Naphthalene	1.30E-04	0.0025	0.0109	0.0004	65.65	8.17E-05
Total HAPs	1.49E-03	0.0286	0.1251	0.0043	65.65	9.37E-04

HAP emission factors are from AP-42, Table 3.4-3 and Table 3.4-4.

The heat capacity of diesel fuel, 137,000 Btu/gal, is from Appendix A of AP-42.  
 $139.7 \text{ gal/hr} \times 137,000 \text{ Btu/gal} = 19.14 \text{ MMBtu/hr}$  at peak engine capacity.

Limited Emissions are based on 300 hours per year.

**Grand Casino Mille Lacs**  
**Title V Permit Renewal Application**  
**Emissions Calculations - Hazardous Air Pollutants (HAPs)**

**Engine 002:** 2884.9 bhp  
 3516B Caterpillar 2000 kW  
 Event Center 139.7 gal/hr

HAPs:	Emission Factors	Unrestricted Potential to Emit		Limited Emissions	RY2013 Actual Operation	RY2013 Actual Emissions
	(lb/MMBtu)	(lb/hr)	(tons/yr)	(tons/yr)	(hr/yr)	(ton/yr)
Benzene	7.76E-04	0.0149	0.0651	0.0022	59.35	4.41E-04
Toluene	2.81E-04	0.0054	0.0236	0.0008	59.35	1.60E-04
Xylenes	1.93E-04	0.0037	0.0162	0.0006	59.35	1.10E-04
Formaldehyde	7.89E-05	0.0015	0.0066	0.0002	59.35	4.48E-05
Acetaldehyde	2.52E-05	0.0005	0.0021	0.0001	59.35	1.43E-05
Acrolein	7.88E-06	0.0002	0.0007	0.0000	59.35	4.48E-06
Naphthalene	1.30E-04	0.0025	0.0109	0.0004	59.35	7.38E-05
Total HAPs	1.49E-03	0.0286	0.1251	0.0043	59.35	8.47E-04

HAP emission factors are from AP-42, Table 3.4-3 and Table 3.4-4.

The heat capacity of diesel fuel, 137,000 Btu/gal, is from Appendix A of AP-42.  
 $139.7 \text{ gal/hr} \times 137,000 \text{ Btu/gal} = 19.14 \text{ MMBtu/hr}$  at peak engine capacity.

Limited Emissions are based on 300 hours per year.

**Grand Casino Mille Lacs**  
**Title V Permit Renewal Application**  
**Emissions Calculations - Hazardous Air Pollutants (HAPs)**

**Engine 003:** 2058.9 bhp  
 3512B Caterpillar 1400 kW  
 Hotel 102.8 gal/hr

HAPs	Emission Factors	Unrestricted Potential to Emit		Limited Emissions	RY2013 Actual Operation	RY2013 Actual Emissions
	(lb/MMBtu)	(lb/hr)	(tons/yr)	(tons/yr)	(hr/yr)	(ton/yr)
Benzene	7.76E-04	0.0109	0.0479	0.0016	69.32	3.79E-04
Toluene	2.81E-04	0.0040	0.0173	0.0006	69.32	1.37E-04
Xylenes	1.93E-04	0.0027	0.0119	0.0004	69.32	9.42E-05
Formaldehyde	7.89E-05	0.0011	0.0049	0.0002	69.32	3.85E-05
Acetaldehyde	2.52E-05	0.0004	0.0016	0.0001	69.32	1.23E-05
Acrolein	7.88E-06	0.0001	0.0005	0.0000	69.32	3.85E-06
Naphthalene	1.30E-04	0.0018	0.0080	0.0003	69.32	6.35E-05
Total HAPs	1.49E-03	0.0210	0.0920	0.0032	69.32	7.28E-04

HAP emission factors are from AP-42, Table 3.4-3 and Table 3.4-4.

The heat capacity of diesel fuel, 137,000 Btu/gal, is from Appendix A of AP-42.

$102.8 \text{ gal/hr} \times 137,000 \text{ Btu/gal} = 14.08 \text{ MMBtu/hr}$  at peak engine capacity.

Limited Emissions are based on 300 hours per year.

**Grand Casino Mille Lacs**  
**Title V Permit Renewal Application**  
**Emissions Calculations - Hazardous Air Pollutants (HAPs)**

**Engine 004:** 1818 bhp  
 3512DITA Caterpillar 1250 kW  
 Chiller 93.5 gal/hr

HAPs	Emission Factors	Potential to Emit		RY2013 Actual Operation	RY2013 Actual Emissions
	(lb/MMBtu)	(lb/hr)	(tons/yr)	(hr/yr)	(ton/yr)
Benzene	7.76E-04	0.0099	0.0435	65.48	3.25E-04
Toluene	2.81E-04	0.0036	0.0158	65.48	1.18E-04
Xylenes	1.93E-04	0.0025	0.0108	65.48	8.09E-05
Formaldehyde	7.89E-05	0.0010	0.0044	65.48	3.31E-05
Acetaldehyde	2.52E-05	0.0003	0.0014	65.48	1.06E-05
Acrolein	7.88E-06	0.0001	0.0004	65.48	3.30E-06
Naphthalene	1.30E-04	0.0017	0.0073	65.48	5.45E-05
Total HAPs	1.49E-03	0.0191	0.0837	65.48	6.26E-04

HAP emission factors are from AP-42, Table 3.4-3 and Table 3.4-4.

The heat capacity of diesel fuel, 137,000 Btu/gal, is from Appendix A of AP-42.  
 $93.5 \text{ gal/hr} \times 137,000 \text{ Btu/gal} = 12.81 \text{ MMBtu/hr}$  at peak engine capacity.



**Grand Casino Mille Lacs**  
**Title V Permit Renewal Application**  
**Emissions Calculations - Hazardous Air Pollutants (HAPs)**

**Engine 005:** 545 hp  
 12V92 Kato 500 kW  
 Laundry 27.8 gal/hr (estimated)

HAPs	Emission Factors		Potential to Emit		R2013 Actual Operation	R2013 Actual Emissions
	(lb/MMBtu)	(lb/hp-hr)	(lb/hr)	(tons/yr)	(hr/yr)	(ton/yr)
Benzene	7.76E-04	5.43E-06	0.0030	0.0007	6.00	8.88E-06
Toluene	2.81E-04	1.97E-06	0.0011	0.0047	6.00	3.22E-06
Xylenes	1.93E-04	1.35E-06	0.0007	0.0032	6.00	2.21E-06
Formaldehyde	7.89E-05	5.52E-07	0.0003	0.0013	6.00	9.03E-07
Acetaldehyde	2.52E-05	1.76E-07	0.0001	0.0004	6.00	2.88E-07
Acrolein	7.88E-06	5.52E-08	0.0000	0.0001	6.00	9.02E-08
Naphthalene	1.30E-04	9.10E-07	0.0005	0.0022	6.00	1.49E-06
Total HAPs	1.49E-03	1.04E-05	0.0057	0.0127	6.00	1.71E-05

HAP emission factors are from AP-42, Table 3.4-3 and Table 3.4-4.

Assumed brake specific fuel consumption of 7,000 Btu/hp-hr from Table 3.4-1 of AP-42.

Potential to Emit Emissions are based on 500 hours per year.

**TOTAL FOR ALL FIVE ENGINES:**

HAPs	Unrestricted Potential to Emit		Limited Emissions	R2013 Actual Emissions
	(lb/hr)	(tons/yr)	(tons/yr)	(ton/yr)
Benzene	0.0535	0.2222	0.0504	0.0016
Toluene	0.0194	0.0849	0.0227	0.0006
Xylenes	0.0133	0.0583	0.0156	0.0004
Formaldehyde	0.0054	0.0238	0.0064	0.0002
Acetaldehyde	0.0017	0.0076	0.0020	0.0001
Acrolein	0.0005	0.0024	0.0006	0.0000
Naphthalene	0.0090	0.0393	0.0105	0.0003
Total HAPs	0.1029	0.4386	0.1081	0.0032



OMB No. 2060-0336, Approval Expires 06/30/2015

## Federal Operating Permit Program (40 CFR Part 71)

## POTENTIAL TO EMIT (PTE)

For each unit with emissions that count towards applicability, list the emissions unit ID and the PTE for the air pollutants listed below and sum them up to show totals for the facility. You may find it helpful to complete form **EMISS** before completing this form. Show other pollutants not listed that are present in major amounts at the facility on attachment in a similar fashion. You may round values to the nearest tenth of a ton. Also report facility totals in section **J** of form **GIS**.

Emissions Unit ID	Regulated Air Pollutants and Pollutants for which the Source is Major (tons/yr)							
	NOx	VOC	SO2	PM10	PM2.5	CO	Lead	HAP
001	10.2	0.2	0.0	0.1	0.1	0.8	0.0	0.0
002	10.2	0.2	0.0	0.1	0.1	0.8	0.0	0.0
003	7.6	0.2	0.0	0.1	0.1	1.7	0.0	0.0
004	209.1	2.3	0.1	3.9	3.8	40.9	0.0	0.0
005	3.3	0.1	0.0	0.1	0.1	0.8	0.0	0.0
FACILITY TOTALS	240.4	2.9	0.1	4.2	4.1	44.9	0.0	0.1

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Federal Operating Permit Program (40 CFR Part 71)

**INITIAL COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION (I-COMP)**

**SECTION A - COMPLIANCE STATUS AND COMPLIANCE PLAN**

Complete this section for each unique combination of applicable requirements and emissions units at the facility. List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the applicable requirement described above. Indicate your compliance status at this time for this requirement and compliance methods and check "YES" or "NO" to the follow-up question.

Emission Unit ID(s): EU001, EU002, EU003, EU004

Applicable Requirement (Describe and Cite)

40 CFR 63.6604(a) Must use fuel meeting requirements of 40 CFR 80.510(b) which include a (1)(i) maximum sulfur content of 15 ppm maximum, and (2)(i) cetane index of 40 or (2)(ii) maximum aromatic content of 35 volume percent.

Compliance Methods for the Above (Description and Citation):

Grand Casino Mille Lacs purchases ultra-low sulfur diesel fuel that meets non-road diesel fuel standards.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU001, EU002, EU003, EU004

Applicable Requirement (Description and Citation):

40 CFR 63 Subpart ZZZZ Table 2.d.3.

- a Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O<sub>2</sub>, or
- b Reduce CO emission by 70 percent or more

Compliance Methods for the Above (Description and Citation):

The initial performance test was conducted November 4-7, 2013. Grand Casino Mille Lacs was issued a one-year compliance extension for the Subpart ZZZZ requirements. (40 CFR 63.6603, 63.6620, Table 4)

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU005

Applicable Requirement (Description and Citation):

40 CFR 63 Subpart ZZZZ Table 2.d.4.

- a Change oil and filter every 500 hours of operation or annually, whichever comes first
- b Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary
- c Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary

Compliance Methods for the Above (Description and Citation):

Grand Casino Mille Lacs performs maintenance annually each spring, including oil changes, and also performs an inspection each fall.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU001, EU002, EU003, EU004, EU005

Applicable Requirement (Description and Citation):

40 CFR 63.6625(h) Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period not to exceed 30 minutes.

Compliance Methods for the Above (Description and Citation):

Generator's operating procedure minimizes startup time and indicates that startup period must not exceed 30 minutes. Engine run data is reviewed each month for EU001, EU002, EU003, and EU004.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU001, EU002, EU003, EU004, EU005

Applicable Requirement (Description and Citation):

40 CFR 63.6650(b)

-(3) Semiannual compliance reports cover the semiannual period from January 1 through June 30, or from July 1 to December 31.

-(4) Semiannual compliance reports must be postmarked no later than July 31 or January 31

Compliance Methods for the Above (Description and Citation):

Grand Casino Mille Lacs will continue to comply with this requirement. The last Semiannual Compliance Report was submitted January 22, 2014. (40 CFR 63.6640(b), 63.6650(c), (d), (e)).

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU001, EU002, EU003, EU004

Applicable Requirement (Description and Citation):

40 CFR 63 Subpart ZZZZ Table 2.b.2.

- a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water than measured during the initial performance test
- b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F

Compliance Methods for the Above (Description and Citation):

The average pressure drop across the catalyst was recorded for each engine during the initial performance test. The catalyst inlet temperature and pressure drop across the catalyst are continuously recorded using a McKinley Hill continuous parametric monitoring system. (40 CFR 63.6603(a), 63.6630, 6635(a), 6640(a), Table 5, Table 6)

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU001, EU002, EU003, EU004

Applicable Requirement (Description and Citation):

40 CFR 63.6612(a) must perform initial performance test within 180 days after the compliance date, October 30, 2013.

Compliance Methods for the Above (Description and Citation):

The initial performance test was conducted November 4-7, 2013. Grand Casino Mille Lacs was issued a one-year compliance extension for the Subpart ZZZZ requirements.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU001, EU002, EU003, EU004

Applicable Requirement (Description and Citation):

40 CFR Subpart ZZZZ Table 3.

-4. Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.

-5. If limited use, conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

40 CFR 63.6640(b) If the catalyst is changed, the values of the operating parameters measured during the initial performance test must be reestablished, and a performance test must be conducted to demonstrate compliance with the emission limitations.

Compliance Methods for the Above (Description and Citation):

Grand Casino Mille Lacs will perform the required testing when applicable.

Compliance Status:

☐ In Compliance: Will you continue to comply up to permit issuance? ☐ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☒ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☒ Yes ☐ No

Emission Unit ID(s): EU001, EU002, EU003, EU004, EU005

Applicable Requirement (Description and Citation):

40 CFR 66.6605

(a) Be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply at all times.

(b) At all times operate and maintain source in a manner consistent with safety and good air pollution control practices.

Compliance Methods for the Above (Description and Citation):

Grand Casino Mille Lacs demonstrated compliance with the emission limitations in the initial performance test. The operating limitations are continuously monitored for EU001 – EU004. The emergency generator EU005 is maintained according to the work practice requirements. (40 CFR 63 Subpart ZZZZ Table 5, Table 6)

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No



Emission Unit ID(s): EU001, EU002, EU003, EU004

Applicable Requirement (Description and Citation):

40 CFR 63.6635 Must monitor continuously at all times that the stationary RICE is operating, except for monitor malfunctions, associated repairs, required performance evaluations and required quality assurance or control activities.

Compliance Methods for the Above (Description and Citation):

Grand Casino Mille Lacs uses a McKinley Hill continuous parametric monitoring system during periods of operation.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU001, EU002, EU003, EU004, EU005

Applicable Requirement (Description and Citation):

40 CFR 63.6655 Must maintain records of

- (a)(1) each notification and report submitted to comply with this subpart
- (a)(2) each malfunction including the occurrence and duration
- (a)(3) each performance test and performance test and performance evaluation
- (a)(4) all required maintenance on the air pollution control and monitoring equipment
- (a)(5) any actions taken during period of malfunction to minimize emissions, and restore malfunctioning process and air pollution control and monitoring equipment to normal operation

Compliance Methods for the Above (Description and Citation):

Records are maintained as required.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU001, EU002, EU003, EU004

Applicable Requirement (Description and Citation):

40 CFR 63.6655 Must maintain records of

-(b)(1) all results of performance tests, CMS performance evaluations, and opacity and visible emission observations; All measurements as may be necessary to determine the conditions of performance tests and performance evaluations, all CMS calibration checks; All adjustments and maintenance performed on CMS;

-(b)(2) previous performance evaluation plans

-(b)(3) requests for alternatives to relative accuracy test for CPMS

Compliance Methods for the Above (Description and Citation):

Records are maintained as required.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU001, EU002, EU003, EU004, EU005

Applicable Requirement (Description and Citation):

40 CFR 63.6655(d) Must maintain records required in Table 6 to show continuous compliance with each emission or operating limitation.

Compliance Methods for the Above (Description and Citation):

Records are maintained as required. EU001 through EU 004's catalyst inlet temperature and pressure drop across the catalyst are continuously monitored.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU005

Applicable Requirement (Description and Citation):

40 CFR 63.6655(e) must maintain maintenance records that demonstrates that you operated and maintained the RICE according to the maintenance plan.

Compliance Methods for the Above (Description and Citation):

Records are maintained as required.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU005

Applicable Requirement (Description and Citation):

40 CFR 63.6655(f) Must keep records of operation of the engine recorded through the non-resettable hour meter, and document hours spent for non-emergency operation, emergency operation, and what classified the operation as emergency.

Compliance Methods for the Above (Description and Citation):

Non-resettable hour meter readings are recorded, and records are maintained as required.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU-005

Applicable Requirement (Description and Citation):

40 CFR 63.6625(e) Must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

Compliance Methods for the Above (Description and Citation):

Grand Casino Mille Lacs operates and maintains generators according to manufacturer's instructions. The engines are maintained under a contract with Ziegler Power Systems. (40 CFR 63 Subpart ZZZZ, Table 6).

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU-005

Applicable Requirement (Description and Citation):

40 CFR 63.6625(f) Must install a non-resettable hour meter if one is not already installed.

Compliance Methods for the Above (Description and Citation):

A non-resettable hour meter is already installed.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU-001, EU-002, EU-003, EU-004

Applicable Requirement (Description and Citation):

40 CFR 63.6625(g) Must

- (1) install a closed crankcase ventilation system that prevent crankcase emissions from being emitted to the atmosphere, or
- (2) install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

Compliance Methods for the Above (Description and Citation):

Closed crankcase ventilation systems were installed on each engine.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU-001, EU-002, EU-003, EU-004

Applicable Requirement (Description and Citation):

40 CFR 63.6625(g) Must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements

Compliance Methods for the Above (Description and Citation):

Crankcase ventilation systems are operated and maintained according to manufacturer's specifications.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU-005

Applicable Requirement (Description and Citation):

40 CFR 63.6625(i) you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement.

Compliance Methods for the Above (Description and Citation):

Optional, Grand Casino Mille Lacs did not use the oil analysis program in 2013.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU-005

Applicable Requirement (Description and Citation):

40 CFR 63.6640(f) You may operate for

-(2) a maximum of 100 hours per calendar year for maintenance, testing, and emergency demand response, and

-(4) up to 50 hours per calendar year in non-emergency situations.

Compliance Methods for the Above (Description and Citation):

Grand Casino Mille Lacs records and tracks emergency engine run time against limits. The engine was operated for 6 hours for maintenance in 2013.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU-001, EU-002, EU-003, EU-004

Applicable Requirement (Description and Citation):

40 CF 63.6645 and 63.6595(c) You must submit

-(a) all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified,

-(g) a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin, and

-(h) a Notification of Compliance Status after the initial performance test.

Compliance Methods for the Above (Description and Citation):

The initial notification was submitted August 26, 2010. The initial performance test's Notification of Intent was submitted on September 5, 2013, 60 days before the November 4-7, 2013 performance test, and the Notification of Compliance Status was submitted on December 20, 2013. (40 CFR 63.6630(c))

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU-001, EU-002, EU-003, EU-004

Applicable Requirement (Description and Citation):

40 CFR 63.6645(h)(2) You must submit a Notification of Compliance Status, including the performance test results, after the initial compliance demonstration within 60 days of test completion.

Compliance Methods for the Above (Description and Citation):

The Notification of Compliance Status was submitted on December 20, 2013, 43 days after the test completion.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): EU-001, EU-002, EU-003, EU-004, EU-005

Applicable Requirement (Description and Citation):

40 CFR 63.6660 Your records must be

- (a) in a form suitable and readily available for expeditious review,
- (b) keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record,
- (c) keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record,

Compliance Methods for the Above (Description and Citation):

Records are maintained as required.

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No



**B. SCHEDULE OF COMPLIANCE**

Complete this section if you answered "NO" to any of the questions in section A. Also complete this section if required to submit a schedule of compliance by an applicable requirement. Please attach copies of any judicial consent decrees or administrative orders for this requirement.

Unit(s) \_\_\_\_\_ Requirement \_\_\_\_\_

**Reason for Noncompliance.** Briefly explain reason for noncompliance at time of permit issuance or that future-effective requirement will not be met on a timely basis:

**Narrative Description of how Source Compliance Will be Achieved.** Briefly explain your plan for achieving compliance:

**Schedule of Compliance.** Provide a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance, including a date for final compliance.

Remedial Measure or Action	Date to be Achieved

**C. SCHEDULE FOR SUBMISSION OF PROGRESS REPORTS**

Only complete this section if you are required to submit one or more schedules of compliance in section B or if an applicable requirement requires submittal of a progress report. If a schedule of compliance is required, your progress report should start within 6 months of application submittal and subsequently, no less than every six months. One progress report may include information on multiple schedules of compliance.

Contents of Progress Report (describe):

First Report \_\_\_\_/\_\_\_\_/\_\_\_\_ Frequency of Submittal \_\_\_\_\_

Contents of Progress Report (describe):

First Report \_\_\_\_/\_\_\_\_/\_\_\_\_ Frequency of Submittal \_\_\_\_\_

**D. SCHEDULE FOR SUBMISSION OF COMPLIANCE CERTIFICATIONS**

This section must be completed once by every source. Indicate when you would prefer to submit compliance certifications during the term of your permit (at least once per year).

Frequency of submittal Annual Beginning 1 / 30 / 2015

Grand Casino Mille Lacs submits compliance certifications by January 30<sup>th</sup> each year.

**E. COMPLIANCE WITH ENHANCED MONITORING & COMPLIANCE CERTIFICATION REQUIREMENTS**

This section must be completed once by every source. To certify compliance with these, you must be able to certify compliance for every applicable requirement related to monitoring and compliance certification at every unit.

Enhanced Monitoring Requirements:   X   In Compliance        Not In Compliance

Compliance Certification Requirements:   X   In Compliance        Not In Compliance



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